

PATENT APPLICATION

for:

"Plasma cutting torch electrode with an Hf/Zr insert"

in the names of:

LA SOUDURE AUTOGENE FRANCAISE

and

L'AIR LIQUIDE, Société Anonyme

à Directoire et Conseil de Surveillance

pour l'Etude et l'Exploitation des Procédés Georges

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ABSTRACT

The invention relates to an emissive electrode insert formed from an alloy containing hafnium and zirconium. The insert typically contains at least 80% hafnium by weight, preferably at least 90% by weight, and 0.1 to 8% zirconium by weight, preferably 0.5 to 5% zirconium by weight. The invention also relates to a plasma torch electrode formed from an electrode body comprising a cavity into which such an emissive insert is fitted; to a plasma torch comprising such an electrode; and to a plasma cutting process for cutting a steel workpiece, in which such a plasma torch is employed.

Figure 1